



## CLAIMS

### INDEPENDENT CLAIM

A system using a sleeve that is first cemented into the post space of an endodontically treated human tooth's pulp canal, whose inner and outer diameters are threaded; with the inner diameter remaining constant or of dual dimension and the outer diameter varying to match the variable diameters of those post spaces, can absorb the wedge-like lateral forces of an integrally threaded and matching post, that has a single side slot running from its tip to its coronal portion; which portion can accept a second integrally threaded and matching sleeve for anchorage and contains two parallel sided flat areas traversed by cross holes, when turned through it by a delivery tool with an internally threaded and matching shank in restoring such human teeth thus preventing root fracture due to post placement.

### DEPENDENT CLAIMS

Innovation in Dental Technology

1. Leaving the inner diameter of the sleeve constant allows for the use of a single diameter of the post in most situations reducing the cost of the system. In cases of unusually large post spaces, a second and larger diameter of the post with an accompanying larger inner diameter of the sleeve would be needed.
2. The post's single side slot running from its tip to one of the flat areas on its coronal portion is filled with cement during the cementation process that facilitates fixture of the post into the pulp canal's post space thus preventing rotational displacement of the post.
3. Threading of the post's entire length along with threading the outer diameter of the sleeve increases the amount of surface area available for adhesive cementation thus enhancing retention of the entire system.
4. Having multiple cross holes running over the coronal portion of the post for integration of flowable composite resin coronal replacement material and being able to place the integrally threaded and matching second sleeve for anchorage of silver amalgam coronal replacement material at any position along the post allows for the manufacture of a single length of the post to be cut chairside by a dentist to a length fitting a particular case, greatly increasing the convenience of the system.
5. Use of the delivery tool, with its internally threaded and matching shank that screws onto to the post, holds the post securely while it is being transported to the mouth for insertion through the sleeve into the post space thus preventing mishandling of the post that could result in its ingestion or aspiration by a dental patient.

<sup>1</sup> Deutsch a, Cavallari J, Musikant B, et al: Root fracture during insertion of prefabricated posts related to root size. J Prosthet Dent 53:786-789, 1985.

<sup>2</sup> Ross IF: Fracture susceptibility of endodontically treated teeth. J Endod 6:560-565, 1980.